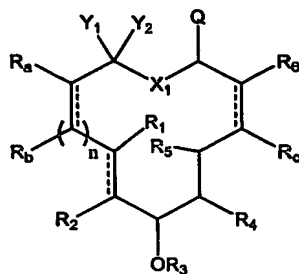


## CLAIMS

**We claim:**

1. A pharmaceutical composition comprising:  
a pharmaceutically acceptable carrier, adjuvant or vehicle; and  
a therapeutically effective amount of a compound having the structure:



**(I)**

or pharmaceutically acceptable salt thereof;

wherein  $R_1$  and  $R_2$  are each independently hydrogen, halogen,  $-CN$ ,  $-S(O)_1$ ,  $2R^{1A}$ ,  $-NO_2$ ,  $-COR^{1A}$ ,  $-CO_2R^{1A}$ ,  $-NR^{1A}C(=O)R^{1B}$ ,  $-NR^{1A}C(=O)OR^{1B}$ ,  $-CONR^{1A}R^{1B}$ , an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety, or  $-WR^{1A}$ ; wherein W is independently  $-O-$ ,  $-S-$  or  $-NR^{1C}-$ , wherein each occurrence of  $R^{1A}$ ,  $R^{1B}$  and  $R^{1C}$  is independently hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; or  $R_1$  and  $R_2$ , taken together with the carbon atoms to which they are attached, form an alicyclic, heteroalicyclic, aryl or heteroaryl moiety;

**R<sub>3</sub>** is hydrogen, an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; or a prodrug moiety or an oxygen protecting group;

$R_4$  is halogen,  $-OR^{4A}$ ,  $-OC(=O)R^{4A}$  or  $-NR^{4A}R^{4B}$ ; wherein  $R^{4A}$  and  $R^{4B}$  are independently hydrogen, an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; a prodrug moiety, a nitrogen protecting group or an oxygen protecting group; or  $R^{4A}$  and  $R^{4B}$ , taken together with the nitrogen atom to which they are attached, form a heterocyclic or heteroaryl moiety;

**R<sub>5</sub> is hydrogen, an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety;**

$R_6$  is hydrogen, halogen,  $-\text{CN}$ ,  $-\text{S}(\text{O})_{1-2}\text{R}^{6A}$ ,  $-\text{NO}_2$ ,  $-\text{COR}^{6A}$ ,  $-\text{CO}_2\text{R}^{6A}$ ,  $-\text{NR}^{6A}\text{C}(=\text{O})\text{R}^{6B}$ ,  $-\text{NR}^{6A}\text{C}(=\text{O})\text{OR}^{6B}$ ,  $-\text{CONR}^{6A}\text{R}^{6B}$ , an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety, or  $-\text{WR}^{6A}$ ; wherein W is independently  $-\text{O}-$ ,  $-\text{S}-$  or  $-\text{NR}^{6C}-$ , wherein each occurrence of  $\text{R}^{6A}$ ,  $\text{R}^{6B}$  and  $\text{R}^{6C}$  is independently hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; or  $R_6$  and  $R_c$ , taken together with the carbon atoms to which they are attached, form an alicyclic, heteroalicyclic, aryl or heteroaryl moiety;

$R_a$  and each occurrence of  $R_b$  are independently hydrogen, halogen,  $-\text{CN}$ ,  $-\text{S}(\text{O})_{1-2}\text{R}^{a1}$ ,  $-\text{NO}_2$ ,  $-\text{COR}^{a1}$ ,  $-\text{CO}_2\text{R}^{a1}$ ,  $-\text{NR}^{a1}\text{C}(=\text{O})\text{R}^{a2}$ ,  $-\text{NR}^{a1}\text{C}(=\text{O})\text{OR}^{a2}$ ,  $-\text{CONR}^{a1}\text{R}^{a2}$ , an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety, or  $-\text{WR}^{a1}$ ; wherein W is independently  $-\text{O}-$ ,  $-\text{S}-$  or  $-\text{NR}^{a3}-$ , wherein each occurrence of  $\text{R}^{a1}$ ,  $\text{R}^{a2}$  and  $\text{R}^{a3}$  is independently hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; or  $R_a$  and the adjacent occurrence of  $R_b$ , taken together with the carbon atoms to which they are attached, form an alicyclic, heteroalicyclic, aryl or heteroaryl moiety;

$R_c$  is hydrogen, halogen,  $-\text{CN}$ ,  $-\text{S}(\text{O})_{1-2}\text{R}^{c1}$ ,  $-\text{NO}_2$ ,  $-\text{COR}^{c1}$ ,  $-\text{CO}_2\text{R}^{c1}$ ,  $-\text{NR}^{c1}\text{C}(=\text{O})\text{R}^{c2}$ ,  $-\text{NR}^{c1}\text{C}(=\text{O})\text{OR}^{c2}$ ,  $-\text{CONR}^{c1}\text{R}^{c2}$ ; an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety, or  $-\text{WR}^{c1}$ ; wherein W is independently  $-\text{O}-$ ,  $-\text{S}-$  or  $-\text{NR}^{c3}-$ , wherein each occurrence of  $\text{R}^{c1}$ ,  $\text{R}^{c2}$  and  $\text{R}^{c3}$  is independently hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; or  $R_c$  and  $R_6$ , taken together with the carbon atoms to which they are attached, form an alicyclic, heteroalicyclic, aryl or heteroaryl moiety;

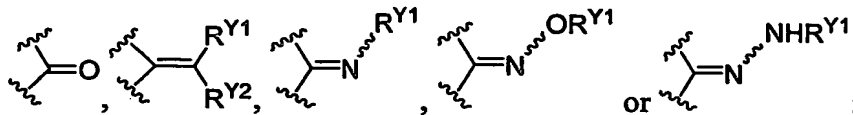
n is an integer from 1 to 5;

$X_1$  is O, S,  $\text{NR}^{X1}$  or  $\text{CR}^{X1}\text{R}^{X2}$ ; wherein  $\text{R}^{X1}$  and  $\text{R}^{X2}$  are independently hydrogen, halogen, an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety, or a nitrogen protecting group;

Q is hydrogen, halogen,  $-\text{CN}$ ,  $-\text{S}(\text{O})_{1-2}\text{R}^{Q1}$ ,  $-\text{NO}_2$ ,  $-\text{COR}^{Q1}$ ,  $-\text{CO}_2\text{R}^{Q1}$ ,  $-\text{NR}^{Q1}\text{C}(=\text{O})\text{R}^{Q2}$ ,  $-\text{NR}^{Q1}\text{C}(=\text{O})\text{OR}^{Q2}$ ,  $-\text{CONR}^{Q1}\text{R}^{Q2}$ , an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety, or  $-\text{WR}^{Q1}$ ; wherein W is independently  $-\text{O}-$ ,  $-\text{S}-$  or  $-\text{NR}^{Q3}-$ , wherein each occurrence of  $\text{R}^{Q1}$ ,  $\text{R}^{Q2}$  and  $\text{R}^{Q3}$  is

independently hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; and

$Y_1$  and  $Y_2$  are independently hydrogen, an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; or  $-WR^{Y1}$ ; wherein W is independently -O-, -S- or  $-NR^{Y2}$ -, wherein each occurrence of  $R^{Y1}$  and  $R^{Y2}$  is independently hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; or  $Y_1$  and  $Y_2$  together with the carbon atom to which they are attached form a moiety having the structure:



whereby the composition is formulated for administration to a subject at a dosage between about 0.1 mg/kg to about 50 mg/kg of body weight.

2. The composition of claim 1, wherein the dosage is between about 1 mg/kg to about 50 mg/kg of body weight.
3. The composition of claim 1, wherein the dosage is between about 0.1 mg/kg to about 40 mg/kg of body weight.
4. The composition of claim 1, wherein the dosage is between about 1 mg/kg to about 40 mg/kg of body weight.
5. The composition of claim 1, wherein the dosage is between about 0.1 mg/kg to about 30 mg/kg of body weight.
6. The composition of claim 1, wherein the dosage is between about 5 mg/kg to about 30 mg/kg of body weight.
7. The composition of claim 1, wherein the dosage is between about 1 mg/kg to about 30 mg/kg of body weight.

8. The composition of claim 1, wherein the dosage is between about 0.1 mg/kg to about 20 mg/kg of body weight.

9. The composition of claim 1, wherein the dosage is between about 1 mg/kg to about 20 mg/kg of body weight.

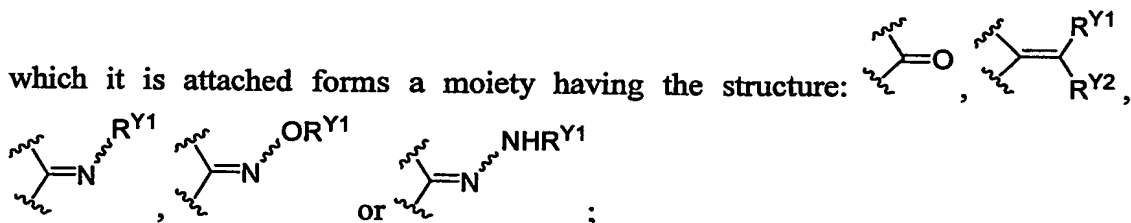
10. The composition of claim 1, wherein the dosage is 10 mg/kg or greater of body weight.

11. The composition of claim 1, wherein:

$R_1$  and  $R_2$  are each independently hydrogen or substituted or unsubstituted lower alkyl; or  $R_1$  and  $R_2$ , taken together with the carbon atoms to which they are attached, form an epoxide, an aziridine or a substituted or unsubstituted cyclopropyl moiety;

$R_3$  is hydrogen, or substituted or unsubstituted lower alkyl or aryl; a prodrug moiety or an oxygen protecting group;

$R_4$  is halogen,  $-OR^{4A}$ ,  $-OC(=O)R^{4A}$  or  $-NR^{4A}R^{4B}$ ; wherein  $R^{4A}$  and  $R^{4B}$  are independently hydrogen, or substituted or unsubstituted lower alkyl; a prodrug moiety, a nitrogen protecting group or an oxygen protecting group; or  $R^{4A}$  and  $R^{4B}$ , taken together with the nitrogen atom to which they are attached, form a heterocyclic or heteroaryl moiety; or  $R_4$ , taken together with the carbon atom to

which it is attached forms a moiety having the structure: 

$R_5$  and  $R_6$  are each independently hydrogen or substituted or unsubstituted lower alkyl; or  $R_5$  and  $R_6$ , taken together with the carbon atoms to which they are attached, form an epoxide, an aziridine or a substituted or unsubstituted cyclopropyl moiety;

$R_a$  and each occurrence of  $R_b$  are independently hydrogen, halogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety, or  $-WR^{a1}$ ; wherein W is independently -O-, -S- or  $-NR^{a3}$ -, wherein each occurrence of  $R^{a1}$ , and  $R^{a3}$  is independently hydrogen, or an alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety; or  $R_a$  and the adjacent occurrence of  $R_b$ , taken together, form an epoxide, an aziridine or a substituted or unsubstituted cyclopropyl moiety;

$R_c$  is hydrogen, halogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety, or  $-WR^{c1}$ ; wherein W is independently -O-, -S- or  $-NR^{c3}$ -, wherein each occurrence of  $R^{c1}$  and  $R^{c3}$  is independently hydrogen, or an alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety; or  $R_c$  and  $R_b$ , taken together with the carbon atoms to which they are attached, form an epoxide, an aziridine or a substituted or unsubstituted cyclopropyl moiety;

$n$  is an integer from 1 to 5;

$X_1$  is O, S,  $NR^{X1}$  or  $CR^{X1}R^{X2}$ ; wherein  $R^{X1}$  and  $R^{X2}$  are independently hydrogen, halogen, substituted or unsubstituted alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl, or a nitrogen protecting group;

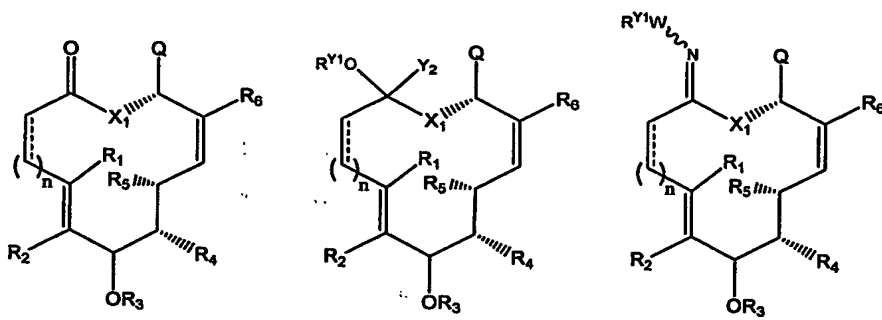
Q is hydrogen, halogen, -CN,  $-S(O)_{1-2}R^{Q1}$ ,  $-NO_2$ ,  $-COR^{Q1}$ ,  $-CO_2R^{Q1}$ ,  $-NR^{Q1}C(=O)R^{Q2}$ ,  $-NR^{Q1}C(=O)OR^{Q2}$ ,  $-CONR^{Q1}R^{Q2}$ , an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety, or  $-WR^{Q1}$ ; wherein W is independently -O-, -S- or  $-NR^{Q3}$ -, wherein each occurrence of  $R^{Q1}$ ,  $R^{Q2}$  and  $R^{Q3}$  is independently hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety;

$Y_1$  and  $Y_2$  are independently hydrogen, an alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety; or  $-WR^{Y1}$ ; wherein W is independently -O-, -S- or  $-NR^{Y2}$ -, wherein each occurrence of  $R^{Y1}$  and  $R^{Y2}$  is independently hydrogen, or an alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety; or  $Y_1$  and  $Y_2$  together with the carbon atom to which they are attached form

a moiety having the structure:

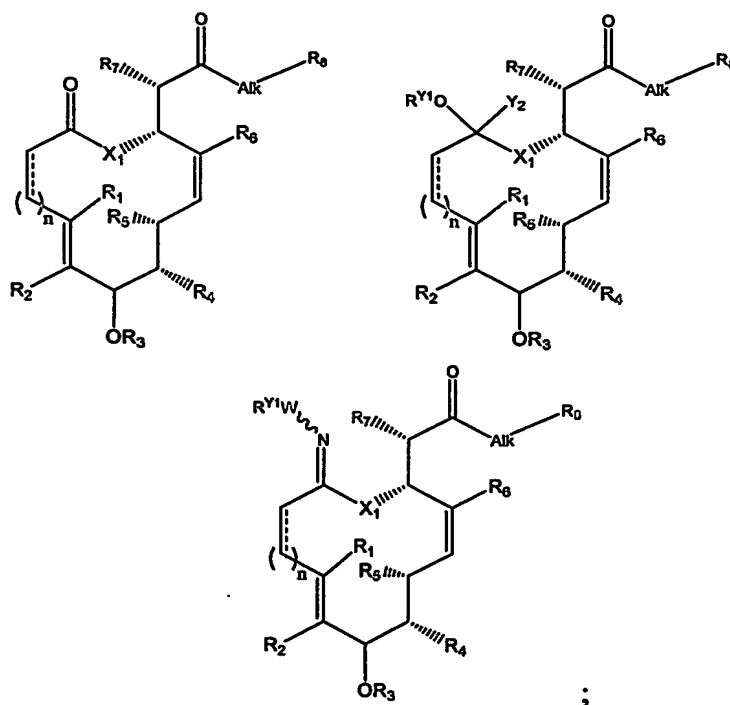
or

12. The composition of claim 1, wherein  $R_a$ ,  $R_b$  and  $R_c$  are each hydrogen, and the compound has one of the following structures:



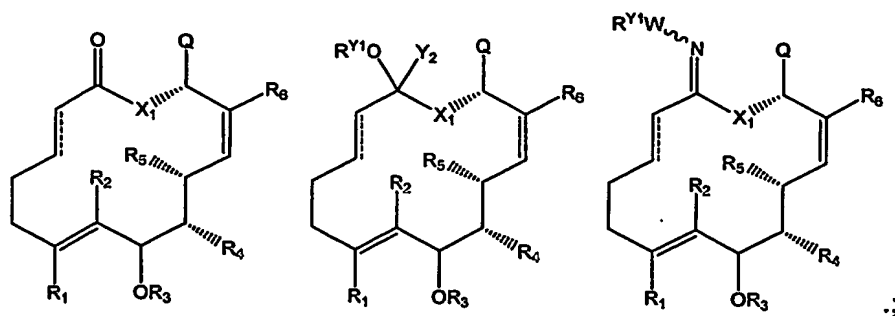
wherein  $R_1$ - $R_6$ ,  $Y_2$ ,  $X_1$ ,  $n$  and  $Q$  are as defined in claim 1;  $W$  is  $O$  or  $NH$ ; and  $R^{Y1}$  is hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety.

13. The composition of claim 1, wherein  $R_a$ ,  $R_b$  and  $R_c$  are each hydrogen,  $Q$  is a carbonyl-containing moiety and the compound has one of the following structures:



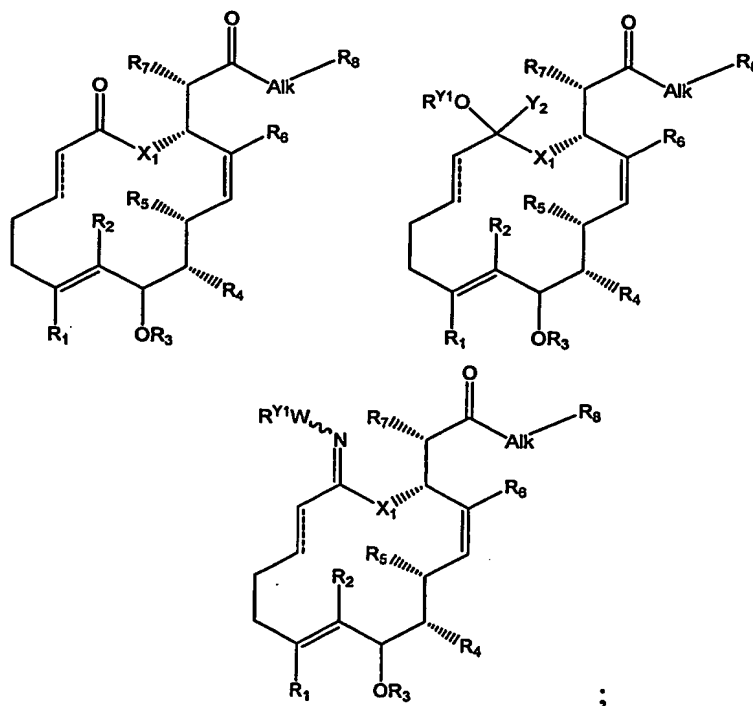
wherein  $R_1$ - $R_6$ ,  $Y_2$ ,  $X_1$ , and  $n$  are as defined in claim 1;  $W$  is O or NH; and  $R^{Y1}$  is hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety;  $R_7$  is a substituted or unsubstituted lower alkyl or heteroalkyl moiety;  $R_8$  is a substituted or unsubstituted alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety; and Alk is a substituted or unsubstituted  $C_{0-6}$ alkylidene or  $C_{0-6}$ alkenylidene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO,  $CO_2$ , COCO,  $CONR^{Z1}$ ,  $ONR^{Z1}$ ,  $NR^{Z1}NR^{Z2}$ ,  $NR^{Z1}NR^{Z2}CO$ ,  $NR^{Z1}CO$ ,  $NR^{Z1}CO_2$ ,  $NR^{Z1}CONR^{Z2}$ , SO,  $SO_2$ ,  $NR^{Z1}SO_2$ ,  $SO_2NR^{Z1}$ ,  $NR^{Z1}SO_2NR^{Z2}$ , O, S, or  $NR^{Z1}$ ; wherein each occurrence of  $R^{Z1}$  and  $R^{Z2}$  is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl.

14. The composition of claim 1, wherein  $R_a$ ,  $R_b$  and  $R_c$  are each hydrogen,  $n$  is 3 and the compound has one of the following structures:



wherein  $R_1$ - $R_6$ ,  $Y_2$ ,  $Q$  and  $X_1$  are as defined in claim 1;  $W$  is  $O$  or  $NH$ ; and  $R^{Y1}$  is hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety.

15. The composition of claim 1, wherein  $R_a$ ,  $R_b$  and  $R_c$  are each hydrogen,  $n$  is 3,  $Q$  is a carbonyl-containing moiety, and the compound has one of the following structures:



wherein  $R_1$ - $R_6$ ,  $X_1$  and  $Y_2$  are as defined in claim 1;  $W$  is  $O$  or  $NH$ ;  $R^{Y1}$  is hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety;  $R_7$  is a substituted or unsubstituted lower alkyl or heteroalkyl moiety;  $R_8$  is a substituted or unsubstituted alkyl, heteroalkyl, cycloalkyl,



heterocycloalkyl, aryl or heteroaryl moiety; and Alk is a substituted or unsubstituted C<sub>0-6</sub>alkylidene or C<sub>0-6</sub>alkenylidene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO<sub>2</sub>, COCO, CONR<sup>Z1</sup>, OCONR<sup>Z1</sup>, NR<sup>Z1</sup>NR<sup>Z2</sup>, NR<sup>Z1</sup>NR<sup>Z2</sup>CO, NR<sup>Z1</sup>CO, NR<sup>Z1</sup>CO<sub>2</sub>, NR<sup>Z1</sup>CONR<sup>Z2</sup>, SO, SO<sub>2</sub>, NR<sup>Z1</sup>SO<sub>2</sub>, SO<sub>2</sub>NR<sup>Z1</sup>, NR<sup>Z1</sup>SO<sub>2</sub>NR<sup>Z2</sup>, O, S, or NR<sup>Z1</sup>; wherein each occurrence of R<sup>Z1</sup> and R<sup>Z2</sup> is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R<sub>8</sub> is a substituted or unsubstituted alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety.

16. The composition of any one of claims 1 and 11-15, wherein R<sub>1</sub> and R<sub>2</sub> are each hydrogen.

17. The composition of any one of claims 1 and 11-15, wherein R<sub>5</sub> and R<sub>6</sub> are each methyl.

18. The composition of any one of claims 1 and 11-15, wherein R<sub>3</sub> is lower alkyl.

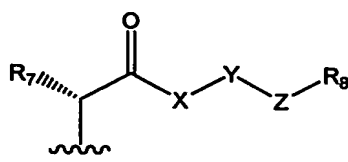
19. The composition of claim 18, wherein R<sub>3</sub> is methyl.

20. The composition of any one of claims 1 and 11-15, wherein R<sub>4</sub> is OH, NH<sub>2</sub> or halogen.

21. The composition of claim 13 or 15, wherein R<sub>7</sub> is lower alkyl.

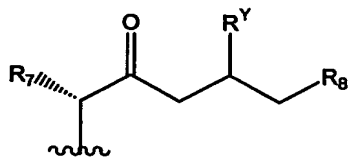
22. The composition of claim 21, wherein R<sub>7</sub> is methyl.

23. The composition of any one of claims 1, 11-12 and 14, wherein Q has the structure:



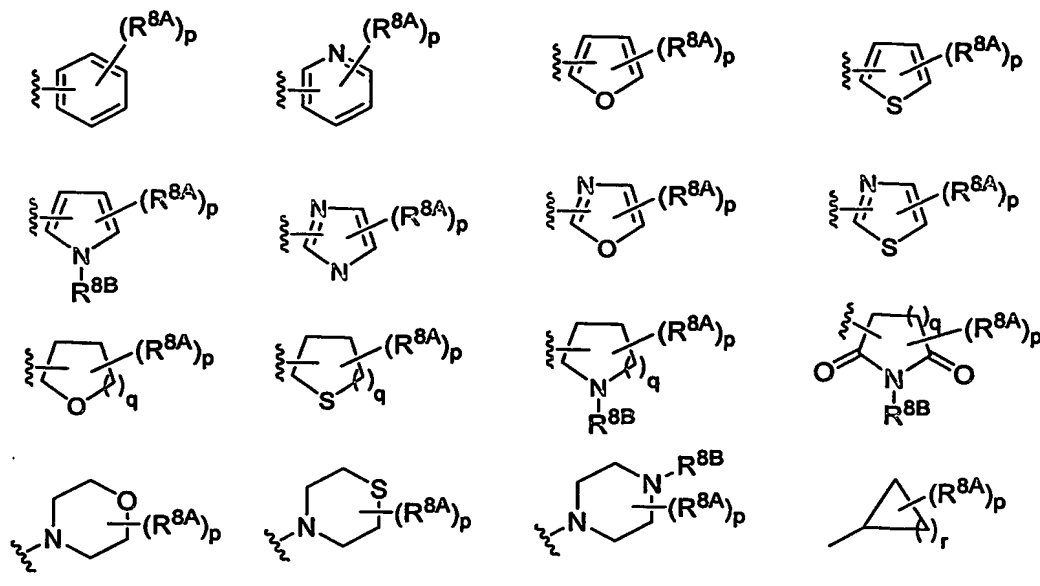
wherein  $R_7$  is a substituted or unsubstituted, linear or branched, cyclic or acyclic lower alkyl moiety;  $R_8$  is a substituted or unsubstituted carbocyclic, heterocyclic, aryl or heteroaryl moiety; and X, Y and Z are independently a bond, -O-, -S-, -C(=O)-, -NR<sup>Z1</sup>-, -CHOR<sup>Z1</sup>, -CHNR<sup>Z1</sup>R<sup>Z2</sup>, C=S, C=N(R<sup>Y1</sup>) or -CH(Hal); or a substituted or unsubstituted C<sub>0-6</sub>alkylidene or C<sub>0-6</sub>alkenylidene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO<sub>2</sub>, COCO, CONR<sup>Z1</sup>, OCONR<sup>Z1</sup>, NR<sup>Z1</sup>NR<sup>Z2</sup>, NR<sup>Z1</sup>NR<sup>Z2</sup>CO, NR<sup>Z1</sup>CO, NR<sup>Z1</sup>CO<sub>2</sub>, NR<sup>Z1</sup>CONR<sup>Z2</sup>, SO, SO<sub>2</sub>, NR<sup>Z1</sup>SO<sub>2</sub>, SO<sub>2</sub>NR<sup>Z1</sup>, NR<sup>Z1</sup>SO<sub>2</sub>NR<sup>Z2</sup>, O, S, or NR<sup>Z1</sup>; wherein Hal is a halogen selected from F, Cl, Br and I; and each occurrence of R<sup>Z1</sup> and R<sup>Z2</sup> is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; or R<sup>Z1</sup> and R<sup>Z2</sup>, taken together with the nitrogen atom to which they are attached, for a heterocyclic or heteroaryl moiety; and pharmaceutically acceptable derivatives thereof.

24. The composition of claim 23, wherein Q has the structure:



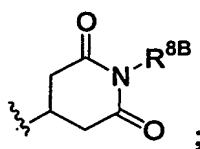
wherein  $R_7$  is a substituted or unsubstituted, linear or branched, cyclic or acyclic lower alkyl moiety;  $R_8$  is a substituted or unsubstituted carbocyclic, heterocyclic, aryl or heteroaryl moiety; and R<sup>Y</sup> is hydrogen, halogen, -OR<sup>Y1</sup> or -NR<sup>Y1</sup>NR<sup>Y2</sup>; wherein R<sup>Y1</sup> and R<sup>Y2</sup> are independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl, or R<sup>Y1</sup> and R<sup>Y2</sup>, taken together with the nitrogen atom to which they are attached, for a heterocyclic or heteroaryl moiety.

25. The composition of any one of claims 13, 15, 23 and 24, wherein  $R_8$  is one of:



wherein  $p$  is an integer from 0 to 5;  $q$  is 1 or 2,  $r$  is an integer from 1 to 6; each occurrence of  $R^{8A}$  is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl,  $-(\text{alkyl})\text{aryl}$  or  $-(\text{alkyl})\text{heteroaryl}$ ,  $-\text{OR}^{8C}$ ,  $-\text{SR}^{8C}$ ,  $-\text{N}(\text{R}^{8C})_2$ ,  $-\text{SO}_2\text{N}(\text{R}^{8C})_2$ ,  $-(\text{C}=\text{O})\text{N}(\text{R}^{8C})_2$ , halogen,  $-\text{CN}$ ,  $-\text{NO}_2$ ,  $-(\text{C}=\text{O})\text{OR}^{8C}$ ,  $-\text{N}(\text{R}^{8C})(\text{C}=\text{O})\text{R}^{8D}$ , wherein each occurrence of  $R^{8C}$  and  $R^{8D}$  is independently hydrogen, lower alkyl, lower heteroalkyl, aryl, heteroaryl,  $-(\text{alkyl})\text{aryl}$  or  $-(\text{alkyl})\text{heteroaryl}$ ; and each occurrence of  $R^{8B}$  is independently hydrogen or lower alkyl.

26. The composition of claim 25, wherein  $R_8$  has the structure:



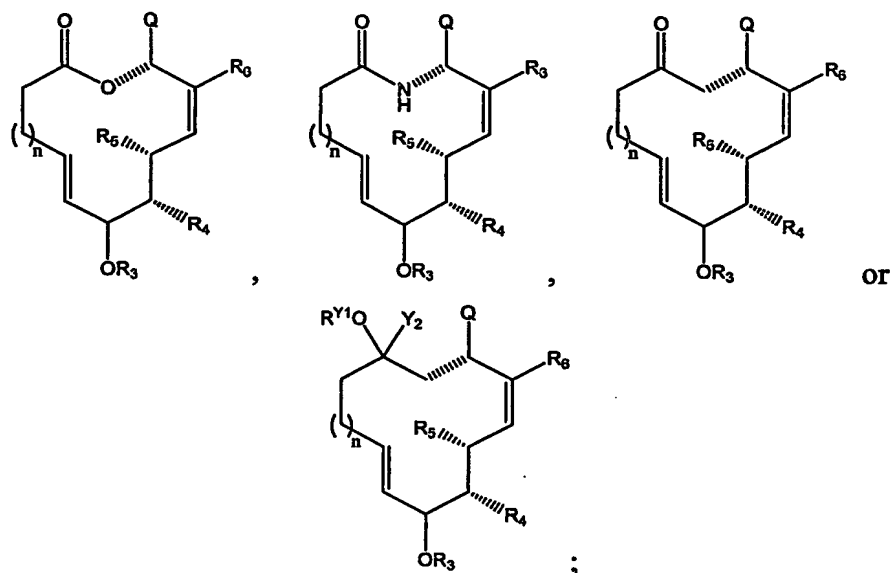
wherein  $R^{8B}$  is hydrogen or lower alkyl.

27. The composition of claim 1, 11, 12 or 13, wherein  $n$  is 3.

28. The composition of claim 12, 13, 14 or 15, wherein  $Y_1$  is  $\text{OR}^{Y1}$  and  $Y_2$  is lower alkyl; wherein  $R^{Y1}$  is hydrogen or lower alkyl.

29. The composition of claim 28, wherein  $Y_1$  is OH and  $Y_2$  is  $CF_3$ .

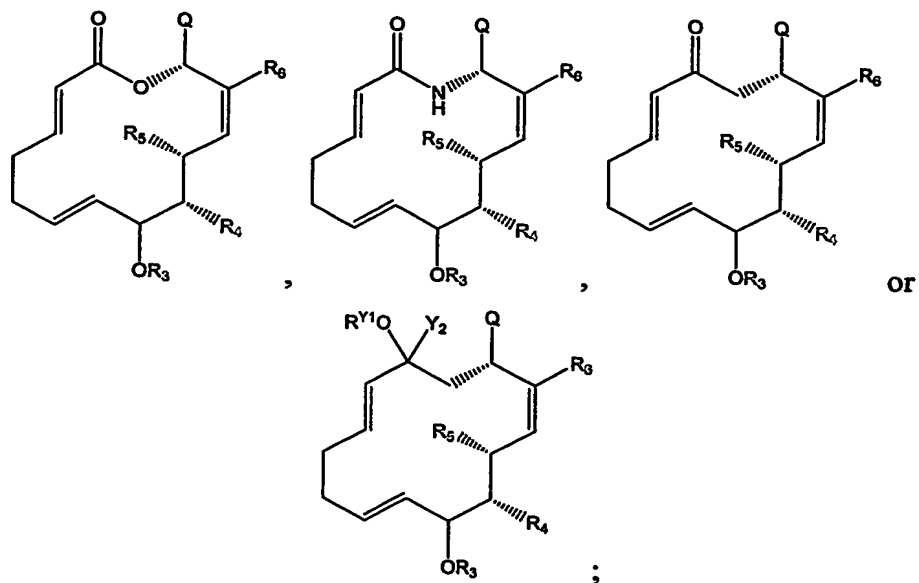
30. The composition of claim 11 wherein  $R_a$ ,  $R_b$  and  $R_c$  are each hydrogen, and the compound has one of the structures:



or pharmaceutically acceptable derivative thereof;

wherein  $R_3$ - $R_6$ ,  $n$  and  $Q$  are as defined in claim 1; and  $Y_2$  and  $R^{Y1}$  are independently hydrogen or lower alkyl.

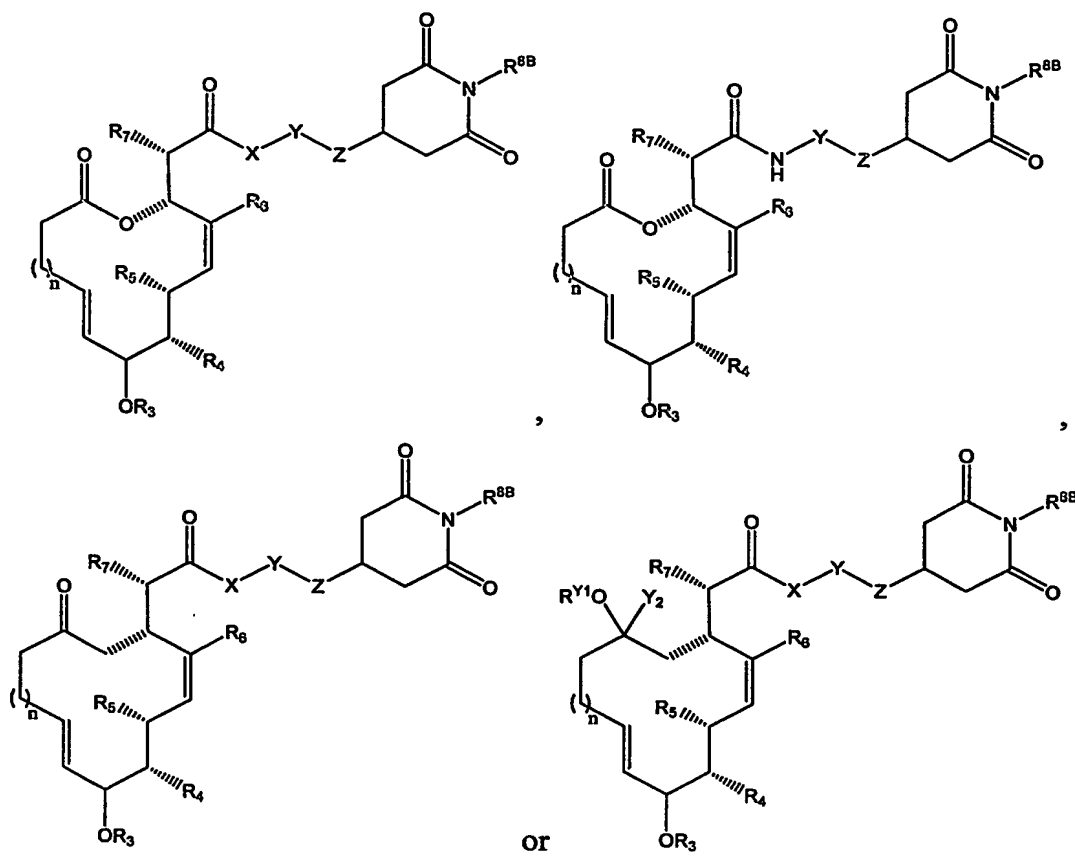
31. The composition of claim 1 wherein the compound has the structure:



or pharmaceutically acceptable derivative thereof;

wherein R<sub>3</sub>-R<sub>6</sub> and Q are as defined in claim 11; and Y<sub>2</sub> and R<sup>Y1</sup> are independently hydrogen or lower alkyl.

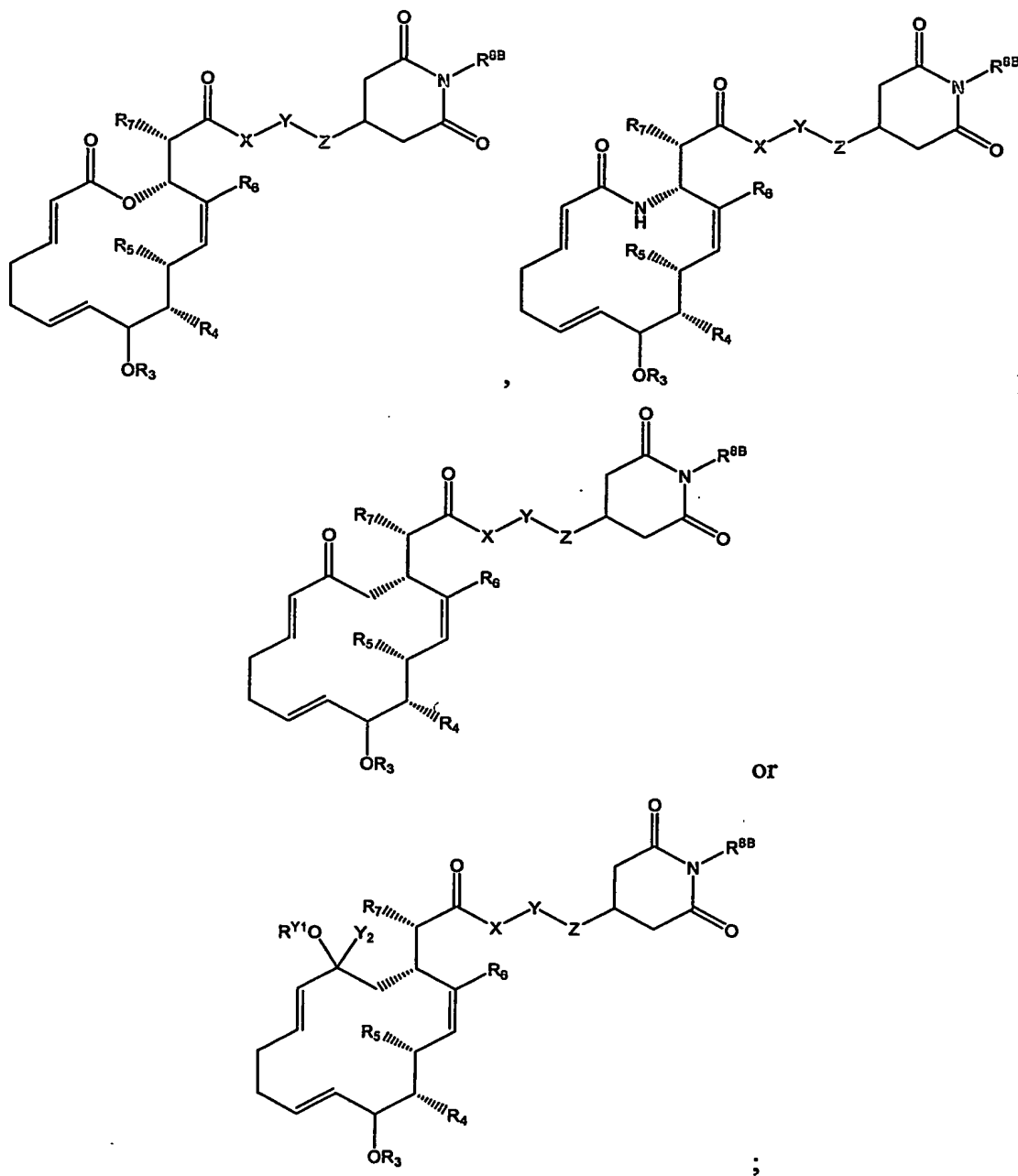
32. The composition of claim 11 wherein the compound has the structure:



or pharmaceutically acceptable derivative thereof;

wherein  $R_3$ - $R_6$  and  $n$  are as defined in claim 11;  $Y_2$  and  $R^{Y1}$  are independently hydrogen or lower alkyl;  $R_7$  is a substituted or unsubstituted, linear or branched, cyclic or acyclic lower alkyl moiety;  $R^{8B}$  is hydrogen or lower alkyl; and  $X$ ,  $Y$  and  $Z$  are independently a bond,  $-O-$ ,  $-S-$ ,  $-C(=O)-$ ,  $-NR^{Z1}-$ ,  $-CHOR^{Z1}$ ,  $-CHNR^{Z1}R^{Z2}$ ,  $C=S$ ,  $C=N(R^{Y1})$  or  $-CH(Hal)$ ; or a substituted or unsubstituted  $C_{0-6}$ alkylidene or  $C_{0-6}$ alkenylidene chain wherein up to two non-adjacent methylene units are independently optionally replaced by  $CO$ ,  $CO_2$ ,  $COCO$ ,  $CONR^{Z1}$ ,  $ONR^{Z1}$ ,  $NR^{Z1}NR^{Z2}$ ,  $NR^{Z1}NR^{Z2}CO$ ,  $NR^{Z1}CO$ ,  $NR^{Z1}CO_2$ ,  $NR^{Z1}CONR^{Z2}$ ,  $SO$ ,  $SO_2$ ,  $NR^{Z1}SO_2$ ,  $SO_2NR^{Z1}$ ,  $NR^{Z1}SO_2NR^{Z2}$ ,  $O$ ,  $S$ , or  $NR^{Z1}$ ; wherein  $Hal$  is a halogen selected from  $F$ ,  $Cl$ ,  $Br$  and  $I$ ; and each occurrence of  $R^{Z1}$  and  $R^{Z2}$  is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; or  $R^{Z1}$  and  $R^{Z2}$ , taken together with the nitrogen atom to which they are attached, for a heterocyclic or heteroaryl moiety.

33. The composition of claim 11 wherein the compound has the structure:



or pharmaceutically acceptable derivative thereof;

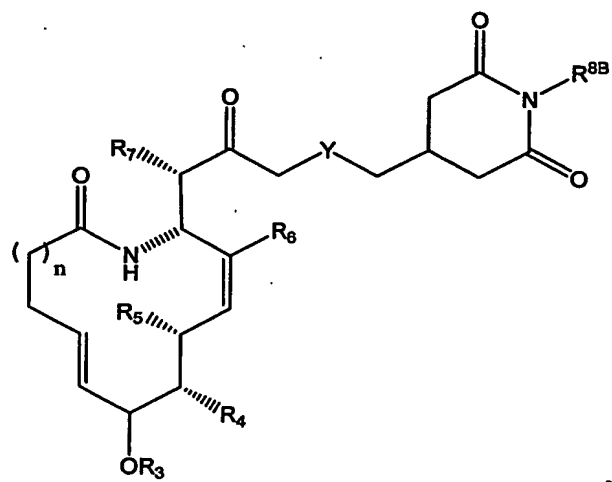
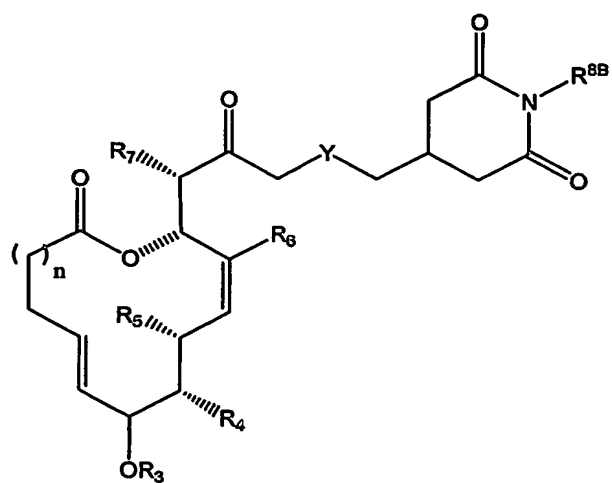
wherein  $R_3$ - $R_6$  are as defined in claim 11;  $Y_2$  and  $R^{Y1}$  are independently hydrogen or lower alkyl;  $R_7$  is a substituted or unsubstituted, linear or branched, cyclic or acyclic lower alkyl moiety;  $R^{8B}$  is hydrogen or lower alkyl; and X, Y and Z

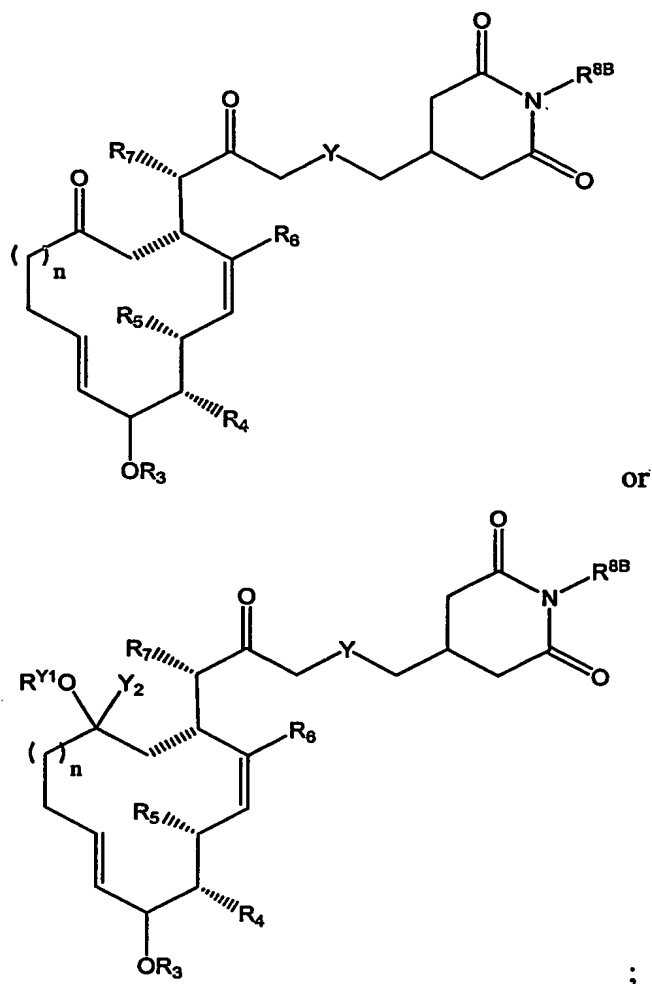
are independently a bond, -O-, -S-, -C(=O)-, -NR<sup>Z1</sup>-, -CHOR<sup>Z1</sup>, -CHNR<sup>Z1</sup>R<sup>Z2</sup>, C=S, C=N(R<sup>Y1</sup>) or -CH(Hal); or a substituted or unsubstituted C<sub>0-6</sub>alkylidene or C<sub>0-6</sub>alkenylidene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO<sub>2</sub>, COCO, CONR<sup>Z1</sup>, OCONR<sup>Z1</sup>, NR<sup>Z1</sup>NR<sup>Z2</sup>, NR<sup>Z1</sup>NR<sup>Z2</sup>CO, NR<sup>Z1</sup>CO, NR<sup>Z1</sup>CO<sub>2</sub>, NR<sup>Z1</sup>CONR<sup>Z2</sup>, SO, SO<sub>2</sub>, NR<sup>Z1</sup>SO<sub>2</sub>, SO<sub>2</sub>NR<sup>Z1</sup>, NR<sup>Z1</sup>SO<sub>2</sub>NR<sup>Z2</sup>, O, S, or NR<sup>Z1</sup>; wherein Hal is a halogen selected from F, Cl, Br and I; and each occurrence of R<sup>Z1</sup> and R<sup>Z2</sup> is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; or R<sup>Z1</sup> and R<sup>Z2</sup>, taken together with the nitrogen atom to which they are attached, for a heterocyclic or heteroaryl moiety.

34. The composition of claim 32 or 33, wherein -X-Y-Z together represents the moiety -CH<sub>2</sub>-Y-CH<sub>2</sub>-; wherein Y is -CHOR<sup>Y1</sup>, -CHNR<sup>Y1</sup>R<sup>Y2</sup>, C=O, C=S, C=N(R<sup>Y1</sup>) or -CH(Hal); wherein Hal is a halogen selected from F, Cl, Br and I; and R<sup>Y1</sup> and R<sup>Y2</sup> are independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl, or R<sup>Y1</sup> and R<sup>Y2</sup>, taken together with the nitrogen atom to which they are attached, for a heterocyclic or heteroaryl moiety.

35. The composition of claim 11 wherein the compound has the structure:

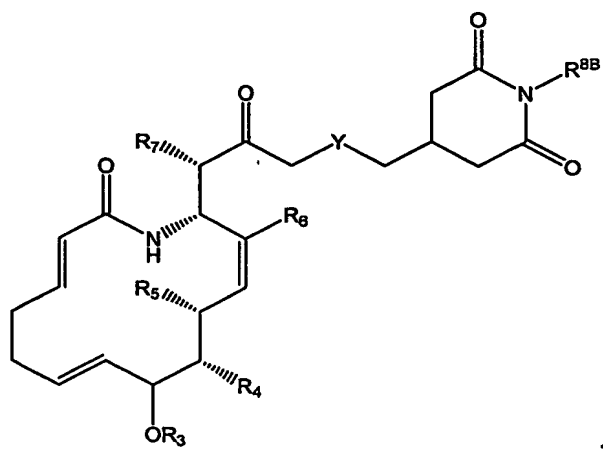
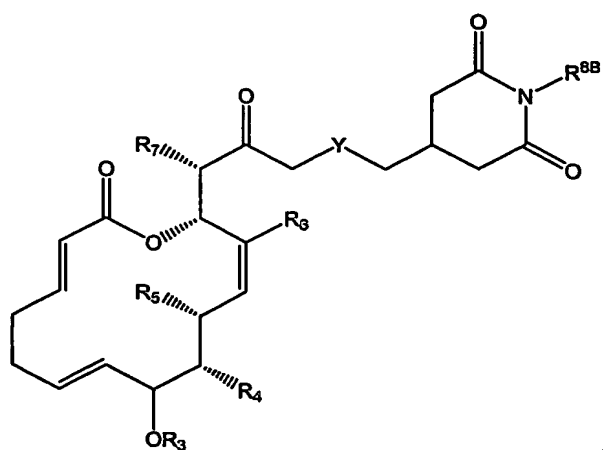


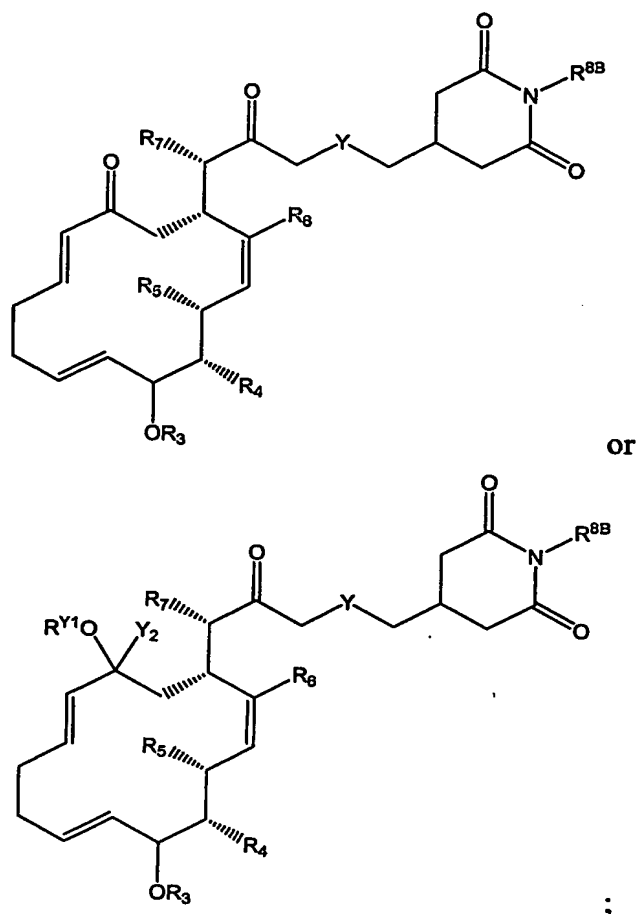




wherein  $R_3$ - $R_6$  and  $n$  are as defined in claim 11;  $Y_2$  and  $R^{Y1}$  are independently hydrogen or lower alkyl;  $R_7$  is a substituted or unsubstituted, linear or branched, cyclic or acyclic lower alkyl moiety;  $R^{8B}$  is hydrogen or lower alkyl; and  $Y$  is  $-\text{CHOR}^{Y1}$ ,  $-\text{CHNR}^{Y1}\text{R}^{Y2}$ ,  $\text{C}=\text{O}$ ,  $\text{C}=\text{S}$ ,  $\text{C}=\text{N}(\text{R}^{Y1})$  or  $-\text{CH}(\text{Hal})$ ; wherein Hal is a halogen selected from F, Cl, Br and I; and  $R^{Y1}$  and  $R^{Y2}$  are independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl, or  $R^{Y1}$  and  $R^{Y2}$ , taken together with the nitrogen atom to which they are attached, for a heterocyclic or heteroaryl moiety.

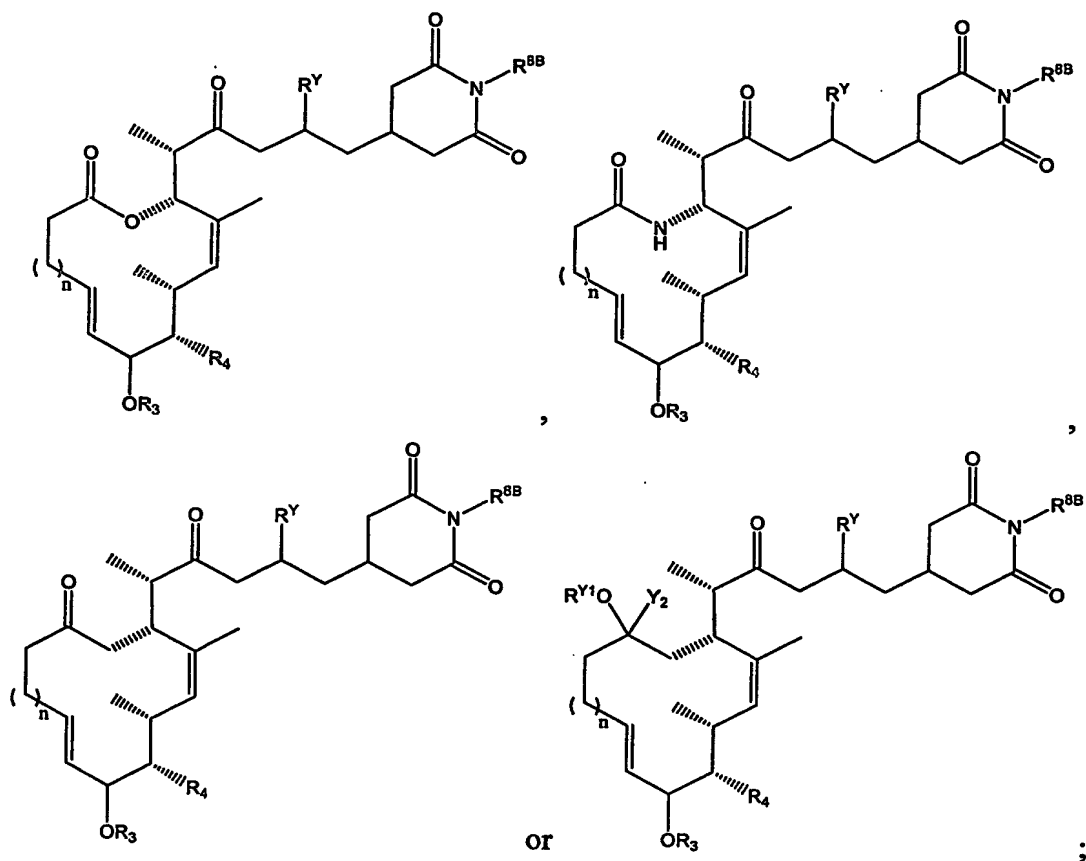
36. The composition of claim 11 wherein the compound has the structure:





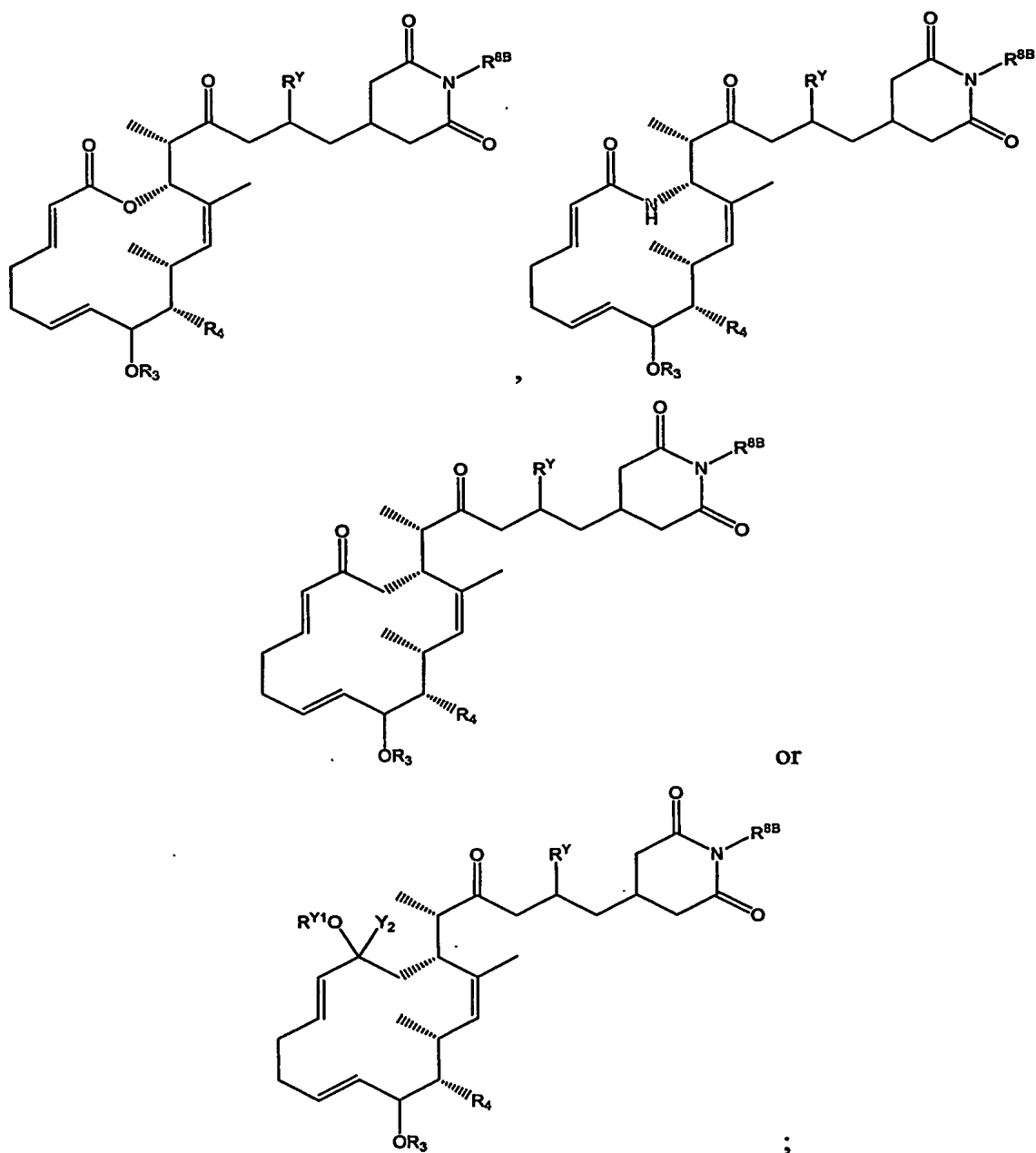
wherein  $R_3$ - $R_6$  are as defined in claim 11;  $Y_2$  and  $R^{Y1}$  are independently hydrogen or lower alkyl;  $R_7$  is a substituted or unsubstituted, linear or branched, cyclic or acyclic lower alkyl moiety;  $R^{8B}$  is hydrogen or lower alkyl; and  $Y$  is  $-\text{CHOR}^{Y1}$ ,  $-\text{CHNR}^{Y1}\text{R}^{Y2}$ ,  $\text{C}=\text{O}$ ,  $\text{C}=\text{S}$ ,  $\text{C}=\text{N}(\text{R}^{Y1})$  or  $-\text{CH}(\text{Hal})$ ; wherein Hal is a halogen selected from F, Cl, Br and I; and  $R^{Y1}$  and  $R^{Y2}$  are independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl, or  $R^{Y1}$  and  $R^{Y2}$ , taken together with the nitrogen atom to which they are attached, for a heterocyclic or heteroaryl moiety.

37. The composition of claim 11 wherein the compound has the structure:

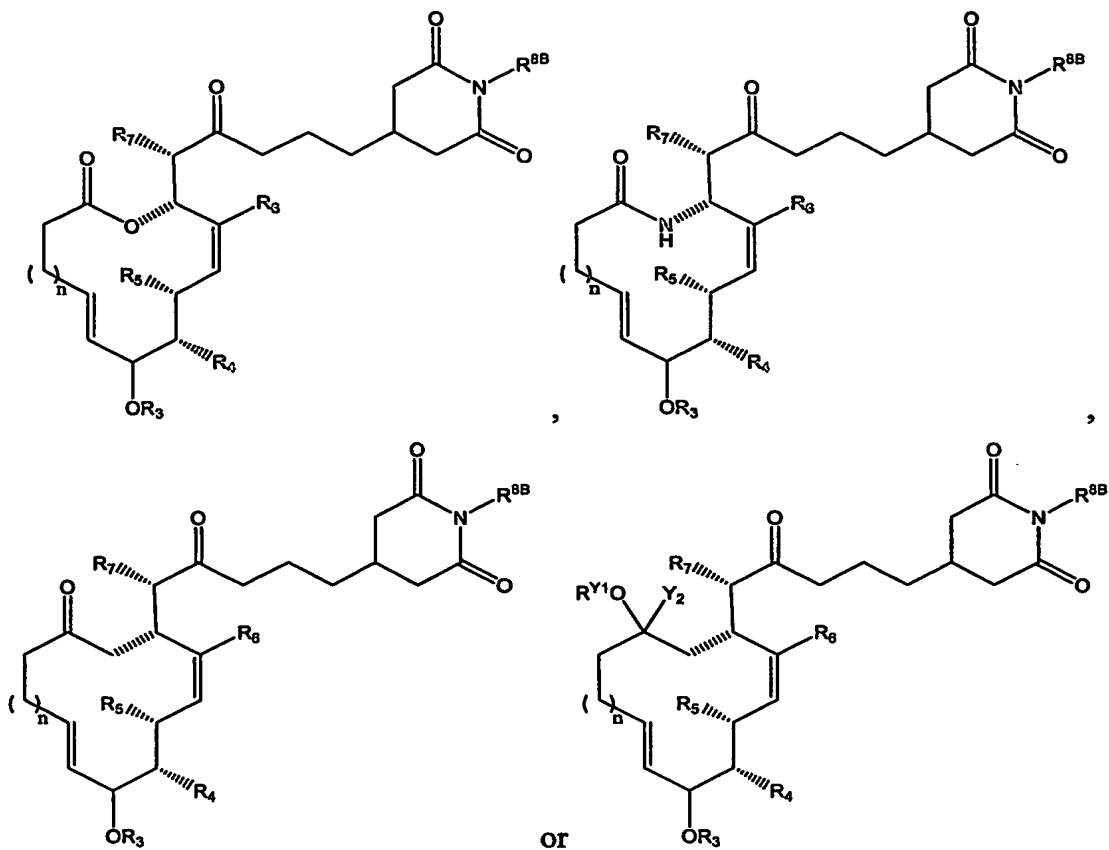


wherein  $n$ ,  $R_3$  and  $R_4$  are as defined in claim 11;  $Y_2$  and  $R^{Y1}$  are independently hydrogen or lower alkyl;  $R^{8B}$  is hydrogen or lower alkyl; and  $R^Y$  is hydrogen, halogen,  $-OR^{Y1}$  or  $-NR^{Y1}NR^{Y2}$ ; wherein  $R^{Y1}$  and  $R^{Y2}$  are independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl, or  $R^{Y1}$  and  $R^{Y2}$ , taken together with the nitrogen atom to which they are attached, for a heterocyclic or heteroaryl moiety.

38. The composition of claim 11 wherein the compound has the structure:

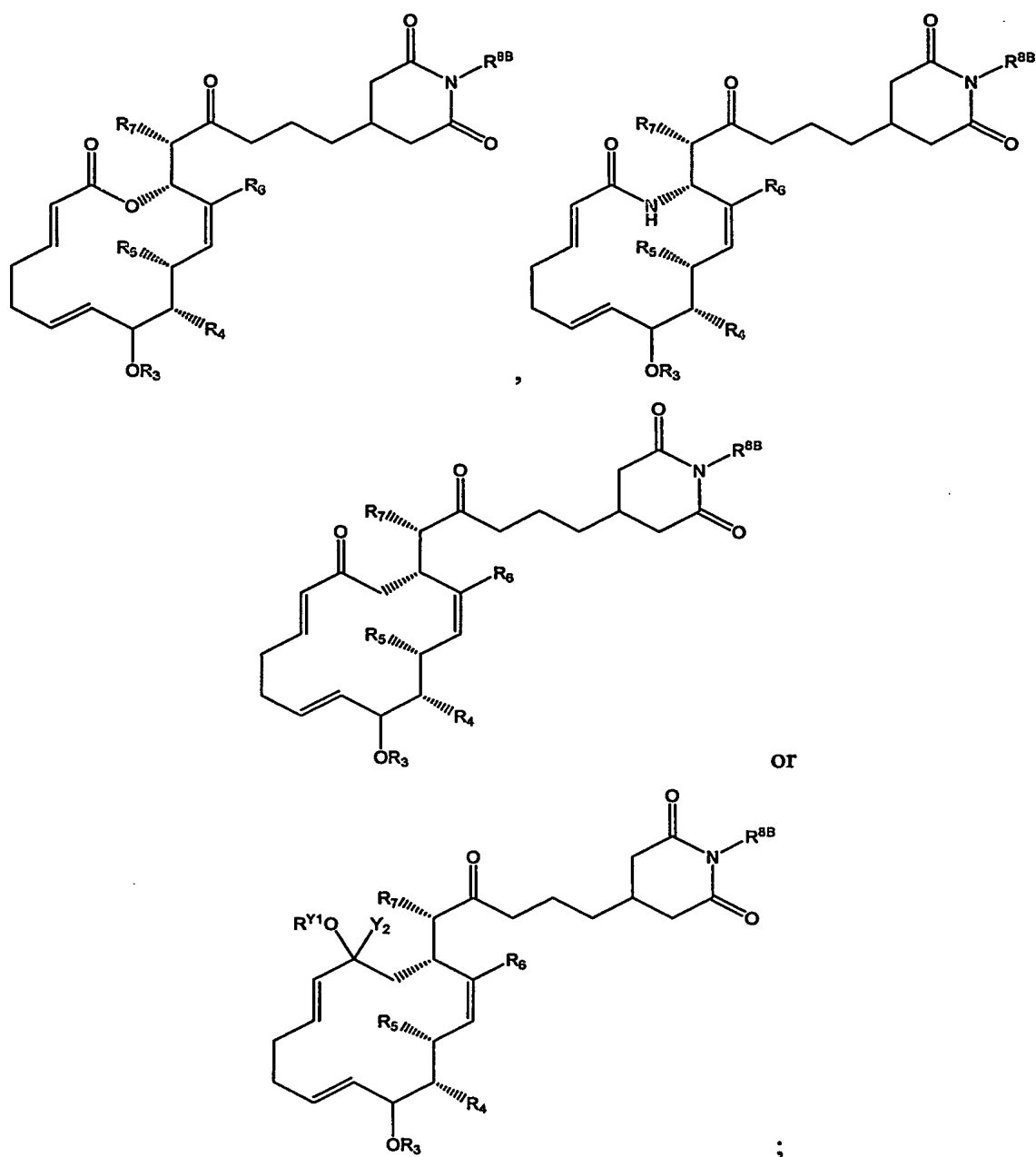


39. The composition of claim 11 wherein the compound has the structure:



wherein  $R_3$ - $R_6$  and  $n$  are as defined in claim 11;  $Y_2$  and  $R^{Y1}$  are independently hydrogen or lower alkyl;  $R_7$  is a substituted or unsubstituted, linear or branched, cyclic or acyclic lower alkyl moiety; and  $R^{8B}$  is hydrogen or lower alkyl.

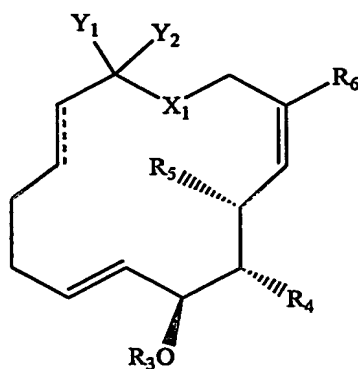
40. The composition of claim 11 wherein the compound has the structure:



wherein  $R_3$ - $R_6$  are as defined in claim 11;  $Y_2$  and  $R^{Y1}$  are independently hydrogen or lower alkyl;  $R_7$  is a substituted or unsubstituted, linear or branched, cyclic or acyclic lower alkyl moiety; and  $R^{8B}$  is hydrogen or lower alkyl.

41. The composition of claim 11 wherein the compound has the following structure:





or a pharmaceutically acceptable salt thereof;

wherein  $X_1$  is  $CH_2$ ,  $NH$  or  $O$ ;

$Y_1$  and  $Y_2$  are independently  $OH$ ,  $C(R^{Y1})_3$  or  $Y_1$  and  $Y_2$  taken together with the carbon atom to which they are attached are  $-C=O$ , wherein  $R^{Y1}$  is halo;

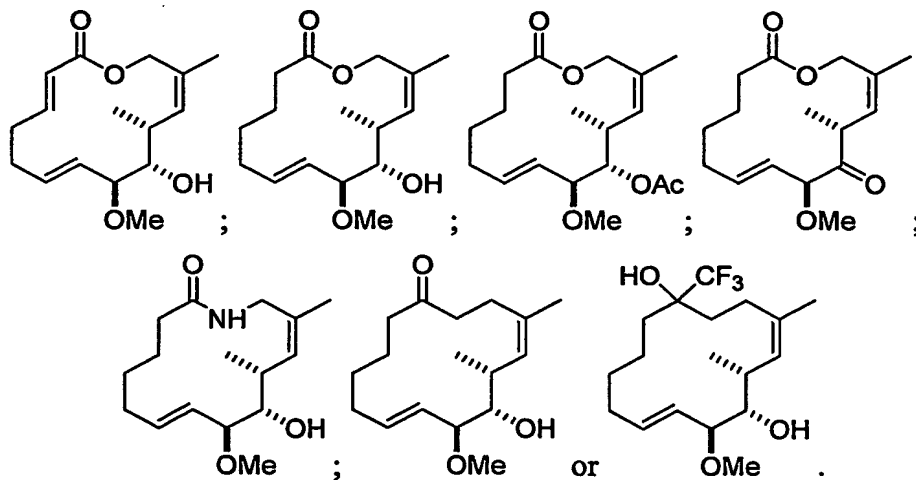
$R_6$  is  $H$  or lower alkyl;

$R_5$  is  $H$  or lower alkyl;

$R_4$  is  $OH$ ; and

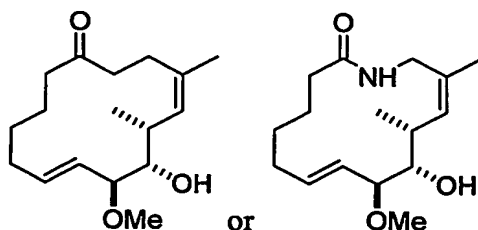
$R_3$  is alkyl.

42. The composition of claim 41 wherein the compound has one of the following structures:



43. The composition of claim 1, wherein the compound is present in an amount effective to inhibit metastasis of tumor cells.
44. The composition of claim 1, wherein the compound is present in an amount effective to inhibit angiogenesis.
45. The composition of claim 1, further comprising a cytotoxic agent.
46. The composition of claim 45, wherein the cytotoxic agent is an anticancer agent.
47. The composition of claim 1, further comprising a palliative agent.
48. A method for treating breast tumor metastasis in a subject comprising:  
administering to a subject in need thereof a therapeutically effective amount of the composition of claim 1.
49. The method of claim 48, wherein the dosage is between about 1 mg/kg to about 50 mg/kg of body weight.
50. The method of claim 48, wherein the dosage is between about 0.1 mg/kg to about 40 mg/kg of body weight.
51. The method of claim 48, wherein the dosage is between about 1 mg/kg to about 40 mg/kg of body weight.
52. The method of claim 48, wherein the dosage is between about 0.1 mg/kg to about 30 mg/kg of body weight.
53. The method of claim 48, wherein the dosage is between about 1 mg/kg to about 30 mg/kg of body weight.

54. The method of claim 48, wherein the dosage is between about 5 mg/kg to about 30 mg/kg of body weight.
55. The method of claim 48, wherein the dosage is between about 0.1 mg/kg to about 20 mg/kg of body weight.
56. The method of claim 48, wherein the dosage is between about 1 mg/kg to about 20 mg/kg of body weight.
57. The method of claim 48, wherein the dosage is 10 mg/kg or greater of body weight.
58. The method of claim 48 wherein in the composition, the compound has one of the following structures:



59. The method of claim 58, wherein the composition is administered at a dosage between about 10 mg/kg to about 20 mg/kg of body weight.
60. The method of claim 48, further comprising administering a cytotoxic agent.
61. The method of claim 60, wherein the cytotoxic agent is an anticancer agent.
62. The method of claim 48, further comprising administering a palliative agent.